

AA96864

ID AAY96864 standard; protein; 370 AA.

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AC AAY96864;

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DT 26-SEP-2000 (first entry)

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DE SEQ. ID. 37 from WO0034474.

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KW Vascular endothelial growth factor; homologue; zveg3; CUB domain;
KW Cysteine knot; platelet-derived growth factor; PDGF; neuropilin;
KW chromosome 4q28.3; cytostatic; anti-psoriatic; anti-inflammatory;
KW anti-diabetic; ophthalmological; anti-rheumatic; anti-arthritis;
KW vulnerable.

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OS Homo sapiens.

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PN WO200034474-A2.

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PD 15-JUN-2000.

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PF 07-DEC-1999; 99WO-US028968.

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PR 07-DEC-1998; 98US-00207120.

PR 06-JUL-1999; 99US-0142576P.

PR 21-OCT-1999; 99US-0161653P.

PR 12-NOV-1999; 99US-0165255P.

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PA (ZYMO) ZYMOGENETICS INC.

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PI Gao Z, Hart CE, Piddington CS, Sheppard PO, Shoemaker KE;
PI Gilbertson DG, West JW;

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DR WPI; 2000-423420/36.

DR N-PSDB; AAA51541.

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PT Novel zveg3 polypeptides and nucleotides encoding them useful for
PT stimulating growth of smooth muscle cells and fibroblasts comprising an
PT epitope bearing portion of a specific amino acid sequence.

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PS Disclosure; Page 164-165; 173pp; English.

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CC Polypeptides comprising an epitope-bearing portion human or murine ZVEGF3
CC (vascular endothelial growth factor homologue) are claimed. The growth
CC factors comprise a growth factor domain and a CUB domain (generic
CC sequence motifs are shown in AAY96859 and AAY96860). The growth factor
CC domain is characterized by an arrangement of cysteine residues and beta-
CC strands that is characteristic of the "cysteine knot" structure of the
CC platelet-derived growth factor (PDGF) family. The CUB domain shows
CC homology to CUB domains in neuropilins, human bone morphogenetic protein-
CC 1, porcine seminal plasma protein, bovine acidic seminal fluid protein
CC and Xenopus laevis tolloid-like protein. Structural analysis and homology
CC predict that ZVEGF3 polypeptides complex with a second polypeptide to
CC form multimeric proteins. The human zveg3 gene has been mapped to
CC chromosome 4q28.3. ZVEGF3 is useful for stimulating the growth of
CC fibroblasts or smooth muscles cells, for activating cell surface PDGF-
CC alpha receptor and for inhibiting PDGF-alpha receptor mediated cellular

ABG92893

ID ABG92893 standard; protein; 370 AA.

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AC ABG92893;

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DT 19-NOV-2002 (first entry)

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DE Human VEGF-like protein zveg f 4.

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KW VEGF; vascular endothelial growth factor; zveg f 3; human;
KW chromosome 4q28.3; cell proliferation; differentiation; metabolism;
KW migration; revascularisation; solid tumour; diabetic retinopathy;
KW psoriasis; rheumatoid arthritis; cancer; autoimmune disease;
KW inflammation; myocardial ischaemia; scleroderma; fibrosis;
KW glomerulosclerosis; atherosclerosis; skin wound; ulcer; burn;
KW skin grafting; female reproductive tract disorder; chronic liver disease;
KW circulatory disorder; heart failure; neurodegenerative disease;
KW multiple sclerosis; Parkinson's disease; Alzheimer's disease; stroke;
KW neurite outgrowth.

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OS Homo sapiens.

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PN US6432673-B1.

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PD 13-AUG-2002.

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PF 07-DEC-1999; 99US-00457066.

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PR 07-DEC-1998; 98US-0111173P.

PR 06-JUL-1999; 99US-0142576P.

PR 21-OCT-1999; 99US-0161653P.

PR 12-NOV-1999; 99US-0165255P.

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PA (ZYMO) ZYMOGENETICS INC.

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PI Gao Z, Hart CE, Piddington CS, Sheppard PO, Shoemaker KE;
PI Gilbertson DG, West JW;

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DR WPI; 2002-689759/74.

DR N-PSDB; ABS68643.

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PT Novel polypeptide, designated zveg f3 useful for treating skin wounds,
PT ulcers, burns, skin grafting, female reproductive tract disorders,
PT Parkinson's disease, and Alzheimer's disease.

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PS Disclosure; Col 95-98; 68pp; English.

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CC The invention relates to an isolated polypeptide, designated zveg f3 (a
CC vascular endothelial growth factor-like protein) of 111-136 amino acid
CC residues in length and comprises the sequence appearing as ABG92889 from
CC amino acid residues 235-345. Also included are an isolated protein
CC comprising a first polypeptide disulphide bonded to a second polypeptide,
CC where each of the first and second polypeptides is from zveg f 3, and
CC where the protein modulates cell proliferation, differentiation,
CC metabolism or migration, the zveg f 3 encoding polynucleotides and zveg f 3
CC expression vectors and host cells. Zveg f 3 is useful as additives in
CC tissue adhesives for promoting revascularisation of the healing tissue,

CC for designing molecules that antagonise semaphorin-stimulated activities,
 CC including neurite growth, cardiovascular development, cartilage and limb
 CC development, and T and B-cell function, and for imaging tumours or other
 CC sites of abnormal cell proliferation and in gene therapy applications.
 CC The proteins are useful therapeutically to stimulate tissue development
 CC or repair, or cellular differentiation or proliferation, for stimulating
 CC the growth of fibroblast or smooth muscle cells, as molecular weight
 CC standards, as reagents in assays for determining circulatory level of the
 CC protein or as standards in the analysis of cell phenotype, for
 CC identifying inhibitors of their activity which are useful for reducing
 CC the growth of solid tumours, for treating diabetic retinopathy,
 CC psoriasis, rheumatoid arthritis, various forms of cancers, autoimmune
 CC disease, inflammation, myocardial ischaemia, scleroderma, and reducing
 CC fibrosis (e.g. silicosis, asbestosis), kidney fibrosis (including
 CC diabetic nephropathy), glomerulosclerosis, atherosclerosis, skin wounds,
 CC ulcers, burns, skin grafting, and female reproductive tract disorders,
 CC chronic liver disease (hepatitis), cirrhosis, Reye's syndrome, Wilson's
 CC disease, circulatory disorders e.g. heart failure, hepatic or portal vein
 CC thrombosis, cardiac sclerosis, neurodegenerative diseases such as
 CC multiple sclerosis, Parkinson's disease, Alzheimer's disease, and for
 CC regenerating neurite outgrowths following strokes. The gene for human
 CC zveg3 is located on chromosome 4q28.3. The present sequence represents
 CC zveg3 3

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SQ Sequence 370 AA;

Query Match 100.0%; Score 1994; DB 5; Length 370;
 Best Local Similarity 100.0%; Pred. No. 6.1e-189;
 Matches 370; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKG	60
Db	1	MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKG	60
QY	61	NGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLLEEAENDICRYDFVEVEDIS	120
Db	61	NGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLLEEAENDICRYDFVEVEDIS	120
QY	121	ETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSLLEDFQPAAASE	180
Db	121	ETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSLLEDFQPAAASE	180
QY	181	TNWESVTSSISGVSYNPSVTDPTLIADALDKKIAEFDTVEDLLKYFNPESWQEDLENMY	240
Db	181	TNWESVTSSISGVSYNPSVTDPTLIADALDKKIAEFDTVEDLLKYFNPESWQEDLENMY	240
QY	241	LDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFPPRCLLVQ	300
Db	241	LDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFPPRCLLVQ	300
QY	301	RCGGNCGCGTVNWRSCCTNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERC	360
Db	301	RCGGNCGCGTVNWRSCCTNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERC	360
QY	361	DCICSSRPPR	370

Db

361 DCICSSRPPR 370